
Network Alternate Route Selection (NARS) implementation

This section provides the procedures necessary to configure Network Alternate Route Selection (NARS). Only the service change information for NARS is shown here. For a complete discussion of prompts and responses, refer to the *X11 Administration input/output guide*. The following procedure shows the steps that must be performed to correctly implement your NARS system.

Procedure 2 Implementing NARS

- 1 Gather data for each NCOS group. (LD 87)
- 2 Gather data to define NARS feature parameters. (LD 86)
- 3 Gather data for each Digit Manipulation Index (DMI). (LD 86)
- 4 Gather data for each Free Calling Area Screening (FCAS). (LD 87)
- 5 Gather data for each Route List associated with ADGT. (LD 86)
- 6 Gather data for each Incoming Trunk Group Exclusion Index (ITGE). (LD 86)
- 7 Gather NARS translation data. (LD 90)
- 8 Gather data to configure Conventional Main for Off-Net Number Recognition. (LD 16)
- 9 Gather data to assign a Network Class of Service group number to a list of items
- 10 Enter data into the database

Step 1

Gather data for each NCOS group. (LD 87)

Prompt	Response	Description
REQ	NEW, CHG, OUT	Create, change, or remove data
CUST	0-99	Customer number
FEAT	NCTL	Feature = Network control
NCOS	0-99	NCOS group to be added, changed, or removed
FRL	(0)-7	Facility restriction level. Your entry determines the entries in a Route List Index (RLI) to which it has access. 0 is the most restrictive, 7 is the least restrictive and can access more entries. FRL is assigned to each NCOS.
RWTA	(NO) YES	Expensive route warning tone

Step 2**Gather data to define NARS feature parameters. (LD 86)**

Prompt	Response	Description
REQ	NEW, CHG, OUT	Create, change, or remove data
CUST	0-99	Customer number
FEAT	ESN	Feature = Electronic Switched Network
MXLC	0-999	Maximum number of supplemental digit restriction blocks
MXSD	0-512	Maximum number of incoming trunk group exclusion tables that can be defined
MXIX	0-255	Maximum number of incoming trunk group exclusion tables
MXDM	0-256	Maximum number of digit manipulation tables, where xxxx = 0-256 if FNP package 160 is not equipped; 0-1000 if FNP package 160 is equipped
MXRL	0-256	Maximum number of route lists
MXFC	0-255	Maximum number of free calling area screening tables
AC1	xx	One or two digit NARS/BARS access code one
AC2	xx	One or two digit NARS access code two
DLTN	(YES) NO	NARS/BARS dial tone after dialing AC1 or AC2
ERWT	(YES) NO	Expensive route warning tone is not (is) provided. Note that ERWT is not supported on TIE trunks.
ERDT	0-(6)-10	Time in seconds that a user has to accept or reject an expensive route after ERWT is given; default is 6 s; range is in 2-second intervals
TODS	x hh mm hh mm	Start and end time-of-day schedules. Where: x = schedule number for NARS = 0-7, hh = hour, mm = minutes
TGAR	(NO) YES	Check for Trunk Group Access Restrictions, where: YES = examine TGAR/TARG when call is placed NO = ignore TGAR/TARG when call is placed

Step 3

Gather data for each Digit Manipulation Index (DMI). (LD 86)

Prompt	Response	Description
REQ	NEW, CHG, OUT	Create, change, or remove data
CUST	0-99	Customer number
FEAT	DGT	Feature = Digit Manipulation Index
DMI	1-255	Digit manipulation table index, xxxx = 0-255 if FNP package 160 is not equipped; 0-1000 if FNP package 160 is equipped. The maximum number of Digit manipulation tables is defined by prompt MXDM.
DEL	(0)-19	Number of leading digits to be deleted from the dialed number; default is 0
INST	x...x	Up to 31 leading digits to be inserted

Step 4

Gather data for each Free Calling Area Screening (FCAS). (LD 87) (Part 1 of 2)

Prompt	Response	Description
REQ	NEW, CHG, PRT	Action request
CUST	0-99	Customer number
FEAT	FCAS	Feature = Free Calling Area Screening
FCI	1-255	Free calling area screening table index number
NPA		Numbering Plan Area code translation. NARS allows up to 15 NPA codes per table with a maximum of 800 NXX codes each.
	xxx	NPA code translation, where xxx = 200-999. The first digit must be 2-9; the second and third digits can be 0-9. Omit the "1" if using 1+NPA format.
	xxx y..y z..z	Extended NPA code translation, where xxx = 3 digits, y..y = 1-3 digits and z..z = 1-4 digits. Separate xxx, y..y and z..z entries with a space. Omit the "1" if using 1+NPA format.
NXX	ALLOW, DENY	Allow or Deny NXX codes for NPA

Step 4**Gather data for each Free Calling Area Screening (FCAS). (LD 87) (Part 2 of 2)**

Prompt	Response	Description
DENY	xxx xxx	NXX code or range of codes to be denied
ALLOW	xxxx xxxx	NXX code or range of codes to be allowed

Step 5**Gather data for each Route List associated with ADGT. (LD 86)**

Prompt	Response	Description
REQ	NEW, CHG, OUT	Create, change, or remove data
CUST	0-99	Customer number
FEAT	RLB	Feature = Route list data block
RLI	0-255	Route list index number. The range is 0-999 with Flexible Numbering Plan.
ENTR	0-63	Route list entry number
ROUT	0-511	Route number associated with the index
TDET	(NO) YES	Tone Detector is (is not) used
TYPE	aaa	Type of tone detector application, where aaa can be: (CC1) = Tone detector for Special Common Carrier Type 1 TIE = Tone detector for on-net calls CC2 = Tone detector for Special Common Carrier Type 2
TONE	a..a	Type of tone expected from Special Common Carrier, where a..a can be: DIAL = normal dial tone (SCC) = SCC dial tone
TOD	0-7	Time-of-Day schedule associated with the entry. Precede entry with X to remove.
EXP	(NO) YES	Entry is (is not) classed as expensive

Step 5

Gather data for each Route List associated with ADGT. (LD 86)

Prompt	Response	Description
FRL	(0)-7	Facility restriction level. Your entry determines the entries in a Route List Index (RLI) to which it has access. 0 is the most restrictive, 7 is the least restrictive and can access more entries. FRL is assigned to each NCOS.
DMI	1-xxxx	Digit manipulation table index, xxxx = 0-255 if FNP package 160 is not equipped; 0-1000 if FNP package 160 is equipped. The maximum number of Digit manipulation tables is defined by prompt MXDM.
FCI	(0)-255	Free calling area screening table index number (FCAS) (0) = no FCAS required
OHQ	(NO) YES	Off Hook Queuing is (is not) allowed on the entry
CBQ	(NO) YES	Call Back Queuing is (is not) allowed on the entry
ISET	(0)-64	Number of entries in the initial route set
MFRL	(MIN), 0-7	Minimum Facility Restriction Level, where: 0-7 = the minimum FRL used to determine autocode prompting; (MIN) = default minimum FRL value.

Step 6

Gather data for each Incoming Trunk Group Exclusion Index (ITGE). (LD 86)

Prompt	Response	Description
REQ	NEW, CHG, OUT	Create, change, or remove data
CUST	0-99	Customer number
FEAT	ITGE	Feature = Incoming trunk group exclusion
ITEI	1-127	Incoming trunk group exclusion index number; if REQ was "OUT" all route entries defined for the entered index are removed
RTNO	0-511	Route number associated with index; precede entry with X to delete an existing route

Step 7**Gather NARS translation data. (LD 90) (Part 1 of 9)**

Prompt	Response	Description
REQ	NEW, CHG, OUT	Create, change, or remove data
CUST	0-99	Customer number
FEAT	NET	Network translation tables
TRAN	aaa	Translator, where aaa can be: AC1 = Access Code 1 AC2 = Access Code 2 SUM = Summary of Network Translators
TYPE	a...a	Type of data block, where a...a can be: LOC = Location code HNPA = Home NPA translation code NPA = Number plan area translation code HLOC = Home location code NXX = Central Office translation code SPN = Special Number translation code NSCL = Speed call
	<return>	Return to REQ
The following prompt occurs if TYPE is LOC:		
LOC	xxx y..y	Location code, where xxx = 3 digits and y..y = 1-4 digits. The extended code (y..y) entry is optional. Separate the NXX code (xxx) and the extended code (y...y) with a space.
RLI	0-255	Route list index
ITEI	(0)-255	Incoming trunk group exclusion index
LDN	xx...xx	Listed Directory Number including NPA of up to 10 digits
DID	(NO) YES	This location arranged for DID
MNXX	(NO) YES	Multiple NXX codes and ranges
- SAVE	1-4	Number of trailing digits to be saved in dialed extension number; must be 4 if MNXX = YES
OFFC	xxx	NXX of the DID number; prompted if MNXX = YES
- RNGE	0-9999 0-9999	Range: Upper and lower limit for DID number range. Your response must be the same number of digits as the number of trailing digits to be saved.

Step 7

Gather NARS translation data. (LD 90) (Part 2 of 9)

Prompt	Response	Description
The following prompt occurs if TYPE is HNP:		
HNP		Home Numbering Plan Area code
	xxx	Response for Home Numbering Plan Area code, where xxx = 200-999. A leading zero is not allowed.
	1xxx	Response for Home Numbering Plan Area code using 1+ dialing, where xxx = 200-999. Note that the xxx entry must be preceded with the character "1".
The following prompts occur if TYPE is NPA:		
NPA		Numbering Plan Area code translation
	xxx	NPA code translation, where xxx = 3 digits. A leading zero is not allowed.
	xxx y..y z..z	Extended NPA code translation. An extended NPA code can be from 4 to 10 digits, where xxx = 3 digits, y..y = 1-3 digits and z..z = 1-4 digits. Separate xxx, y..y and z..z entries with a space.
	1xxx	NPA code translation using 1+ dialing, where xxx = 3 digits. Note that the xxx entry must be preceded with the character "1".
	1xxx y..y z..z	Extended NPA code translation using 1+ dialing. An extended NPA code using 1+ dialing can be from 5 to 11 digits, where xxx = 3 digits, y..y = 1-3 digits and z..z = 1-4 digits. Separate xxx, y..y and z..z entries with a space. Note that the xxx entry must be preceded with the character "1".
RLI	0-255	Route list index

Step 7**Gather NARS translation data. (LD 90) (Part 3 of 9)**

Prompt	Response	Description
SDRR	a..a	Type of supplemental restriction or recognition, where a..a can be: ALLOW = Allowed codes ARRN = Alternate Routing Remote Number DDD = Recognized remote Direct Distance Dial codes DENY = Restricted codes DID = Recognized remote Direct Inward Dial codes ITED = Incoming Trunk group Exclusion Digits LDDD = Recognized Local Direct Distance Dial codes LDID = Recognized Local Direct Inward Dial codes STRK = ADM/MDM trunk groups
SDRR	aaa	Type of supplemental restriction or recognition. See prompt above for response options.
DMI	1-255	Digit manipulation table index
DENY	x...x	Number to be denied within the NPA or SDRR. The maximum number of digits to be entered must be the lesser of 10 or 10-m (11-m for 1+dialing), where: m = number of digits entered for NPA. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.
- LDID	x...x	Local DID number recognized within the NPA. The maximum number of digits to be entered must be the lesser of 10 or 10-m (11-m for 1+dialing), where: m = number of digits entered for NPA. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.

Step 7**Gather NARS translation data. (LD 90) (Part 4 of 9)**

Prompt	Response	Description
- LDDD	x...x	Local DDD number recognized within the NPA. The maximum number of digits to be entered must be the lesser of 10 or 10-m (11-m for 1+dialing), where: m = number of digits entered for NPA. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.
- DID	x...x	Remote DID number recognized within the NPA. The maximum number of digits to be entered must be the lesser of 10 or 10-m (11-m for 1+dialing), where: m = number of digits entered for NPA. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.
- DDD	x...x	Remote DDD number recognized within the NPA. The maximum number of digits to be entered must be the lesser of 10 or 10-m (11-m for 1+dialing), where: m = number of digits entered for NPA. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.
- ITED	x...x	Incoming trunk group exclusion codes for NPA. The maximum number of digits to be entered must be the lesser of 10 or 10-m (11-m for 1+dialing), where: m = number of digits entered for NPA. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.
- ITEI	(0)-127	Incoming trunk group exclusion index

Step 7**Gather NARS translation data. (LD 90) (Part 5 of 9)**

Prompt	Response	Description
The following prompts appear if TYPE is NXX		
NXX	xxx	Numbering Plan Exchange (Central Office) code translation, where: xxx = 3 digits. A leading zero is not allowed.
	1xxx	NXX code translation using 1+ dialing, where: xxx = 3 digits. The xxx entry must be preceded with the character "1".
	xxx y..y	Extended NXX code, where xxx = 3 digits and y..y = 1-4 digits. Separate the NXX code (xxx) and the extended code (y..y) with a space.
	1xxx y..y	Extended NXX code using 1+ dialing, where xxx = 3 digits and y..y = 1-4 digits. Separate the NXX code (xxx) and the extended code (y..y) with a space. The xxx entry must be preceded with the character "1".
RLI	0-255	Route list index
SDRR	a..a	Type of supplemental restriction or recognition, where a..a can be: ALLOW = Allowed codes ARRN = Alternate Routing Remote Number DDD = Recognized remote Direct Distance Dial codes DENY = Restricted codes DID = Recognized remote Direct Inward Dial codes ITED = Incoming Trunk group Exclusion Digits LDDD = Recognized Local Direct Distance Dial codes LDID = Recognized Local Direct Inward Dial codes STRK = ADM/MDM trunk groups
DMI	1-255	Digit Manipulation table Index
DENY	x...x	Number to be denied within the NXX or SDRR. The maximum number of digits to be entered = 7-m (8-m for 1+ dialing), where: m = number of digits entered for NXX. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.

Step 7

Gather NARS translation data. (LD 90) (Part 6 of 9)

Prompt	Response	Description
- LDID	x...x	Local DID number recognized within the NXX. The maximum number of digits to be entered = 7-m (8-m for 1+dialing), where: m = number of digits entered for NXX. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.
- LDDD	x...x	Local DDD number recognized within the NXX. The maximum number of digits to be entered = 7-m (8-m for 1+dialing), where: m = number of digits entered for NXX. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.
- DID	x...x	Remote DID number recognized within the NXX. The maximum number of digits to be entered = 7-m (8-m for 1+dialing), where: m = number of digits entered for NXX. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.
- DDD	x...x	Remote DDD number recognized within the NXX. The maximum number of digits to be entered = 7-m (8-m for 1+dialing), where: m = number of digits entered for NXX. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.

Step 7**Gather NARS translation data. (LD 90) (Part 7 of 9)**

Prompt	Response	Description
- ITED	x...x	Incoming trunk group exclusion codes for NXX. The maximum number of digits to be entered = 7-m (8-m for 1+dialing), where: m = number of digits entered for NXX. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.
- ITEI	(0)-255	Incoming trunk group exclusion index
The following prompts appear if TYPE is SPN:		
SPN	x...x x...x	Special Number translation. Enter SPN in groups of 3 or 4 digits, separated by a space (e.g., xxxx xxx xxxx). The SPN can be up to 19 digits long. The maximum length no longer depends on whether or not the first digit of the SPN is a "1". That restriction has been removed. The maximum number of groups allowed is 5.
RLI	0-127	Route list index
SDRR	a..a	Type of supplemental restriction or recognition, where a..a can be: ALLOW = Allowed codes ARRN = Alternate Routing Remote Number DDD = Recognized remote Direct Distance Dial codes DENY = Restricted codes DID = Recognized remote Direct Inward Dial codes ITED = Incoming Trunk group Exclusion Digits LDDD = Recognized Local Direct Distance Dial codes LDID = Recognized Local Direct Inward Dial codes STRK = ADM/MDM trunk groups
DMI	1-255	Digit manipulation table index
DENY	x...x	Number to be denied within the SPN or SDRR

Step 7

Gather NARS translation data. (LD 90) (Part 8 of 9)

Prompt	Response	Description
- LDID	x...x	Local DID number recognized within the SPN. The maximum number of digits to be entered must be the lesser of 10 or 19-m, where m = number of digits entered for SPN. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.
- LDDD	x...x	Local DDD number recognized within the SPN. The maximum number of digits to be entered must be the lesser of 10 or 19-m, where m = number of digits entered for SPN. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.
- DID	x...x	Remote DID number recognized within the SPN. The maximum number of digits to be entered must be the lesser of 10 or 19-m, where m = number of digits entered for SPN. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.
- DDD	x...x	Remote DDD number recognized within the SPN. The maximum number of digits to be entered must be the lesser of 10 or 19-m, where m = number of digits entered for SPN. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.

Step 7**Gather NARS translation data. (LD 90) (Part 9 of 9)**

Prompt	Response	Description
- ITED	x...x	Incoming trunk group exclusion codes for SPN. The maximum number of digits to be entered must be the lesser of 10 or 19-m, where m = number of digits entered for SPN. This number does not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.
- ITEI	(0)-255	Incoming trunk group exclusion index
The following prompts appear if TYPE is NSCL:		
NSCC	xxx	One- to three-digit network speed call access code
SSCL	0-4095	System speed call list number

Step 8**Gather data to configure Conventional Main for Off-Net Number Recognition. (LD 16)**

Prompt	Response	Description
REQ	NEW CHG	Add or change a route
TYPE	RDB	Route data block
CUST	0-99	Customer number
ROUTE	0-511	Route number
TKTP	TIE	TIE trunk
CNVT	(NO) YES	Route to Conventional switch; CNVT is prompted if TKTP = TIE.
DDMI	(0)-255	Digit manipulation index; DDMI is prompted if CNVT = YES.
ATDN	xxxx	Attendant DN of Conventional Main. ATDN is prompted if CVNT = YES. If the DN expansion package is equipped, the attendant DN can have up to 7 digits.; otherwise, only 4 digits can be entered.

Step 9

Gather data to assign a Network Class of Service group number to a list of items

Step 9 requires the user to access several overlay programs. In all cases, the prompt is NCOS; the range is 0-99 (or 0-7 with X11 Release 12 and earlier); the default is 0.

Gather data to assign a Network Class of Service group number to each of the following items:

- 500/2500 telephones (LD 10)
- Meridian Modular telephones, SL-1 telephones, M1000 series telephones, M2000 series digital telephones, M3000 Touchphones (LD 11)
- Attendant consoles (LD 12)
- Trunks (LD 14)
- Direct Inward System Access Directory Number or DISA DN (LD 24)
- System Speed Call (LD 18)
- Authorization Code (LD 88)

Step 10**Enter data into the database**

The final step in configuring Network Alternate Route Selection is to enter the data gathered into the database:

- 1** Log in.
- 2** Load the appropriate program.
- 3** Enter data requested by prompts until REQ prompt returns.
- 4** More data to be added/removed? Yes = go to Step 2; No = perform datadump.

Note: A datadump takes approximately 3 minutes to complete. If large amounts of data are being added, perform a datadump periodically. This ensures that entered data is not lost should a system reload occur.

- 5** Print data (respond with PRT to prompt REQ) and verify against data forms.
- 6** Corrections required? Yes = go to Step 2; No = Refer to 553-2YY1-230 and perform applicable tests.

